Gravatt, Dan

From: Washburn, Ben
Sent: Thursday, October 09, 2014 12:01 PM
To: Gravatt, Dan; Johnson, James
Subject: CAG/MCE Questions
Attachments: Questions and Responses for June 16 CAG Meeting.docx

Dan, James,

Please take a look at the attached document. I've taken a quick stab at the questions that I felt I could answer and need some input from SUPR for the rest.

James, there are a couple of questions related to air monitoring, which is why I'm including you.

Take a look when you can and send back responses/edits to existing responses so that I can continue to finalize.

Thanks,
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EPA Responses to Questions Submitted by the West Lake Landfill Community Advisory Group for the June, 2014 CAG Meeting

Question 1: What are the background levels for radiation that will be used by EPA for comparison during construction of the isolation barrier at West Lake Landfill?

Answer: They will be determined in the design documents for the isolation barrier construction. They have not yet been established.

Question 2: Provide soil sampling results from 2007

Answer: Need more specifics so we can make sure we give the CAG what it wants. I do not recall any soil sampling occurring in 2007...

Question 3: Since the last testing of the haul routes was done prior to 2005, Why can't EPA do a testing now in 2014 to acquire a current data baseline from which to work from? Why not test all the places that have not been tested since 2005 til present?

Answer: Previous soil sampling conducted along the haul routes has been thorough and provided no basis for additional testing of the haul routes. EPA has seen no credible scientific evidence that the haul route sampling previously conducted was in any way inadequate. Site conditions have not changed to warrant any additional testing along the haul routes.

Question 4: My understanding is Thor230 becomes more volatile as it decays. Why, then, is it not possible that some of the rad waste may have migrated? Is it not being responsible to have current data from current testing & not base your position on testing done 9+ yrs ago? -Is the EPA afraid that their old data/results will not stand up against current test data?

Answer: Thorium and all of its isotopes are solids that are not volatile (they do not evaporate). It decays into daughter products that, with the exception of radon, are also non-volatile solids. Thus, migration of thorium or its daughters (with the exception of radon) due to volatility does not occur. If radon is emitted from the site, it mixes with the atmosphere just as it would from any other radioactive decay occurring anywhere in the earth's crust.

Question 5: Even medical science advances from implementing new ways of testing and/or continued testing. Why is the EPA above this approach/protocol to gain possible new information or confirmation of existing info?

Answer: Sampling and analytical methodologies have not significantly changed over time such that the historical data would be considered inaccurate.

Question 6: What is the actual number of 'background' radiation that was used to calibrate the machine that tested BMAC?

Answer: Calibration of the equipment was performed by a professional technician prior to the start of the BMAC screening. Then during the screening at BMAC, the machine was response checked at the start and end of each day using a known standard. Regarding the establishment of a background level, this will be addressed in the final report on the radiation survey.

Question 7: What is the actual number of 'background' radiation in a city in Missouri with similar elevation, no ore-bearing mountains close by, and no atomic (FUSRAP, DOE or Superfund) sites within that county or a neighboring county?

Answer: There is no one number that can be reported as a valid comparison. Every city or location in the world will have slightly different background radiation levels. These levels are influenced by natural factors (for example, the type of rock and the altitude) and by man-made factors (certain types of industries and electric power generation use or release radioactive substances).

Question 8: To what would the EPA attribute any increase in 'background' radiation in the St. Louis/St. Charles area as compared to the non-atomic city?

Answer: There is no valid comparison that can be made to such a "reference" city. The background levels at any location are, by definition, independent of any individual source of contamination. As previously stated, background encompasses both natural and manmade sources.

Question 9: The recent history of the site indicates that many of the engineered 'solutions' have failed (i.e. the leachate spills, non-reporting gas-monitoring wells, the monitors that failed in freezing weather, the graded hill that spilled RIM into adjacent property, the ripped cap, the recent surface fire). As nuclear expert Robert Alvarez indicated that engineered solutions are prone to failure, what is the EPA's contingency plan for if/when the fire break fails?

Answer: St. Louis County is currently preparing an emergency response plan in case conditions at West Lake landfill warrant such action. The Missouri AG's Order with Republic does not specify any further contingency plans beyond installation of the isolation barrier. EPA believes the contingency plans specified in the AG's Order are adequate.

Question 10: Is the EPA ORD (office of Research-Development) determining what will happen if the SSE comes into contact with the RIM and/or other potential chemical hazards?

Answer: ORD has already conducted an analysis, and offered comments, on the PRP report describing potential effects of the SSE coming into contact with the RIM. Their analysis is available on EPA's website. The PRPs will revise their SSE evaluation to address ORD's comments.
EPA is conducting its own analysis of potential impacts that the SSE may have on the RIM. That analysis is being conducted through EPA's review – with ORD and state input - of the SSE report submitted by the Respondents in January 2014. The EPA expects that this process will result in a rigorously considered, scientifically-supported analysis

Question 11: At the CAG meeting on May 29, 2014, Dan Gravatt stated that the 2012 NRRB review was related to budget allotment issues. Why did the EPA change the "Review", which is sunshine-able via FOIA, to a "Consultation", which is not sunshine-able?

Answer: EPA chose to consider the 2012 NRRB review as a consultation so that the numerous comments generated by NRRB could be fully evaluated and addressed by the PRPs. The NRRB consultation was an intermediate step that is not the final review of the NRRB. When the NRRB conducts its final review of the selected remedy, EPA will release the report.

Question 12: At the same meeting, Denise Jordan-Izaguirre from ATSDR indicated that the technology of the machine used by the EPA was in some way more advanced or sophisticated than the one used for the West Lake Moms group. It is our understanding that both the EPA and the Community Group used 2X2 NaI detectors. Can you please describe the technology of the EPA machine used, explain how it differs from the one the Community used, and what the EPA technology would be able to detect that the other one cannot?

Answer: Gamma spectroscopy is a complex science requiring extensive education and training to practice. The EPA equipment used at BMAC included a 3 x 3 NaI detector, which is not significantly different than the 2 x 2 detector in the Gamma Pal. The main difference is that the EPA equipment collected gross gamma counts and did not separate the energies; EPA is relying on QA/QCd lab results from soil samples to separate the energies and provide a quantitative measure of what is present. The Gamma Pal collected gross gamma counts and also separated the energies, but these results could only be considered qualitative without the establishment and adherence to QA/QC procedures. The results of the EPA's testing will provide definitive quantitative data that will support valid conclusions about the presence of radioactive isotopes at BMAC.

Question: Does EPA have authority to legally compel PRPs to offer re-location alternatives for nearby residents during Barrier construction due to odor nuisance? Otherwise residents are left with asking Missouri AG to sue Republic for relocation assistance which is a time consuming process.

Answer: EPA does not have the legal authority to compel PRPs to offer relocation alternatives for nearby residents during barrier construction due to odor nuisance.